

WHAT IS CLAIMED IS:

1. An isolated nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, the cDNA insert of the plasmid deposited with ATCC as Accession Number 203302, the cDNA insert of the plasmid deposited with ATCC as Accession Number 203569, the cDNA insert of the plasmid deposited with ATCC as Accession Number 203797, or a complement thereof.
2. The nucleic acid molecule of claim 1 further comprising vector nucleic acid sequences.
3. The nucleic acid molecule of claim 1 further comprising nucleic acid sequences encoding a heterologous polypeptide.
4. A host cell which contains the nucleic acid molecule of claim 1.
5. The host cell of claim 4 which is a mammalian host cell.
6. A nonhuman mammalian host cell containing the nucleic acid molecule of claim 1.
7. An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:14 or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203569.
8. The polypeptide of claim 7 further comprising heterologous amino acid sequences.
9. A method for producing a polypeptide comprising the amino acid sequence of SEQ ID NO:14 or an amino acid sequence encoded by the cDNA insert of

the plasmid deposited with ATCC as Accession Number 203569, said method comprising culturing a host cell which contains a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:13 or the cDNA insert of the plasmid deposited with ATCC as Accession Number 203569 under conditions in which the nucleic acid molecule is expressed.

10. A method for detecting the presence of a polypeptide of claim 7 in a sample, comprising:

- a) contacting the sample with a compound which selectively binds to a polypeptide of claim 7; and
- b) determining whether the compound binds to the polypeptide in the sample.

11. The method of claim 10, wherein the compound which binds to the polypeptide is an antibody.

12. A method for identifying a compound which binds to a polypeptide of claim 7 comprising the steps of:

- a) contacting a polypeptide, or a cell expressing a polypeptide of claim 7 with a test compound; and
- b) determining whether the polypeptide binds to the test compound.

13. The method of claim 12, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

- a) detection of binding by direct detecting of test compound/polypeptide binding;
- b) detection of binding using a competition binding assay;
- c) detection of binding using an assay for Th2-specific-mediated signal transduction.

14. A method for modulating the activity of a polypeptide of claim 7 comprising contacting the polypeptide or a cell expressing the polypeptide with a compound which binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.

15. A method for identifying a compound which modulates the activity of a polypeptide of claim 7, comprising:

a) contacting a polypeptide of claim 7 with a test compound; and
b) determining the effect of the test compound on the activity of the polypeptide to thereby identify a compound which modulates the activity of the polypeptide.

16. A method for modulating a Th2 response in a mammal, said method comprising administering to said mammal a therapeutically effective amount of a polypeptide or its corresponding antibody wherein said polypeptide is selected from the group consisting of:

a) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, or SEQ ID NO:16, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, or SEQ ID NO:16;

b) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203302, an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203569, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203797, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID

NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, or a complement thereof under stringent conditions; and

- c) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 45% identical to a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, or a complement thereof.

17. A method for modulating an immune response in a mammal, said method comprising altering activity of a polypeptide in said mammal by administering to said mammal a therapeutically effective amount of said polypeptide or an antibody corresponding to said polypeptide or by regulating in said mammal expression of a nucleotide sequence encoding said polypeptide, wherein said polypeptide is selected from the group consisting of:

- a) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, or SEQ ID NO:16, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, or SEQ ID NO:16;

- b) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203302, an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203569, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203797, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, or a complement thereof under stringent conditions; and

c) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 45% identical to a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, or a complement thereof.

18. A method for suppressing airway inflammation in a mammal, said method comprising altering activity of a polypeptide in said mammal by administering to said mammal a therapeutically effective amount of an antibody corresponding to said polypeptide or by regulating in said mammal expression of a nucleotide sequence encoding said polypeptide, wherein said polypeptide is selected from the group consisting of:

a) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, or SEQ ID NO:16, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, or SEQ ID NO:16;

b) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203302, an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203569, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203797, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, or a complement thereof under stringent conditions; and

c) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 45% identical to a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5,

SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, or a complement thereof.

19. A method for suppressing airway hyperresponsiveness in a mammal, said method comprising altering activity of a polypeptide in said mammal by administering to said mammal a therapeutically effective amount of an antibody corresponding to said polypeptide or by regulating in said mammal expression of a nucleotide sequence encoding said polypeptide, wherein said polypeptide is selected from the group consisting of:

10 a) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, or SEQ ID NO:16, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, or SEQ ID NO:16;

15 b) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203302, an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203569, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number 203797, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, or a complement thereof under stringent conditions; and

25 c) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 45% identical to a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, or a complement thereof.

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